Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services

STATEMENT OF BASIS

Refinery Tank Farm
ExxonMobil Refining and Supply Company
East Baton Rouge, East Baton Rouge Parish, Louisiana
Agency Interest Number: 2638
Activity Number: PER20070008
Draft Permit 2795-V3

I. APPLICANT:

Company:
ExxonMobil Refining and Supply Company
P.O. Box 551
Baton Rouge, Louisiana 70821

Facility:
Tank Farm
4045 Scenic Highway, Baton Rouge, East Baton Rouge Parish, Louisiana
Approximate UTM coordinates are 675.685 kilometers East and 3373.097 kilometers North, Zone 15

II. FACILITY AND CURRENT PERMIT STATUS:

The Baton Rouge Refinery (BRRF) is an existing petroleum refinery. This permit covers Refinery Tank Farm only. Permit No. 2795-V0 was issued on February 18, 2004. Previously the facility operated under Permit 2795-V1 dated April 11, 2006. Currently the facility operates under Permit 2795-V2 dated January 11, 2007.

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Several Part 70 permits addressing portions of the facility have already been issued. These include:

Permit #	Units or Sources	Date Issued
3120-00056-V1	Anchorage Tank Farm	02/18/2004
2385-V3	Catalytic Cracking Complex	02/17/2007
2589-V3	Light Ends	04/11/2006
2176-V3	Low Sulfur Gasoline	04/11/2006
2815-V0	Tank Cleaning Pump	12/23/2002
2275-V1	Pipestill Complex	02/18/2004
2234-V3	Cokers	04/11/2006
2447-V1	Hydroprocessing	05/18/2006
2296-V2	Light Oils	08/06/2007
2261-V1	Reformer	02/02/2007
2341-V2	Specialties	08/29/2007
2047-V1	Docks	04/11/2006
2363-V0	Water Clarification Unit (WCLA)	06/19/2006
2795-V2	Refinery Tank Farm	01/11/2007

III. PROPOSED PERMIT / PROJECT INFORMATION:

Proposed Permit

ExxonMobil submitted an application and Emission Inventory Questionnaire (EIQ) dated May 30, 2007 and additional information dated June 1, 2007 and August 10, 2007, requesting a Part 70 permit modification.

A notice requesting public comment on the permit was published in *The Advocate*, Baton Rouge, on **<date>**, 2007. A copy of the public notice was mailed to concerned citizens listed in the Office of Environmental Services Public Notice Mailing List on **<date>**. The draft permit was also submitted to US EPA Region VI on **<date>**. All comments will be considered prior to the final permit decision.

Project description

The Refinery Tank Farm is an existing complex in the Refinery. It consists of the Bluff, East Area North, East Area South, Knox, and South Field. The tanks store various refinery feed/products such as crude oil, middle distillates, blending components and finished gasoline. Gasoline blending also occurs in this operating area.

Permitted Air Emissions

ExxonMobil Refinery proposes to modify the Tank Farm as follows:

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1. The deletion of the source identified as Analyzer Emissions (RTF/AN).
2. The addition of one (1) storage tank, emission source, DIST/TK0136.
3. The deletion of six (6) storage tanks that have been dismantled, emission sources, DIST/TK0064; DIST/TK0132; DIST/TK0133; DIST/TK0919; FEED/TK0094; and KXFLD/TK0167.
4. The deletion of one (1) tank that is part of the chemical plant, emission source, DIST/TK0410.
5. The deletion of one (1) source of fugitives, emission source, KXFLD/TK0863/FUG.
6. The addition of fugitives, emission source, KXFLD/TK0779/FUG.
7. The revision of emission limits and/or regulatory applicability from the facility's remaining emission point sources based on updated emission factors and/or current facility conditions.
8. The incorporation of alternate operating scenarios for emission source FEED/TK0798.

Estimated emissions from the facility in tons per year are as follows:

Pollutant	Before	After	Change
PM_{10}	1.38	0.44	−0.94
SO_2	2.25	2.02	−0.23
NO_X	5.51	5.51	–
CO	4.18	3.44	−0.74
VOC	1498.65	1552.42	+53.77

The VOC emissions increase is due to the recognition of floating roof landing losses as required by changes to Organic Liquid Storage Tank emissions calculation procedures in AP-42 Chapter 7, in November of 2006. The increase in VOC emissions as a result of recognizing floating roof landing losses is 64.09 tons/year.

Prevention of Significant Deterioration Applicability

No modification is proposed, thus PSD does not apply.

MACT requirements

The facility meets MACT requirement by complying with the Louisiana Refinery MACT Determination through the Louisiana Fugitive Emission Consolidation program for the project fugitives. The proposed project will comply with the appropriate MACT requirements.

Air Modeling Analysis

Louisiana Toxic Air Pollutant (LTAP) dispersion modeling is performed for the applicable LTAP compounds with emissions above the Minimum Emission Rate

associated with this project. Impact on air quality from the emissions of the proposed unit will be below the National Ambient Air Quality Standards (NAAQS) and the Louisiana Ambient Air Standards (AAS) beyond industrial property.

General Condition XVII Activities

The facility will comply with the applicable General Condition XVII Activities emissions as required by the operating permit rule. However, General Condition XVII Activities are not subject to testing, monitoring, reporting or recordkeeping requirements. For a list of approved General Condition XVII Activities, refer to Section VIII of the draft Part 70 permit.

Insignificant Activities

All Insignificant Activities are authorized under LAC 33:III.501.B.5. For a list of approved Insignificant Activities, refer to Section IX of the draft Part 70 permit.

IV. Regulatory Analysis

The applicability of the appropriate regulations is straightforward and provided in the Facility Specific Requirements Section of the draft permit. Similarly, the Monitoring, Reporting and Recordkeeping necessary to demonstrate compliance with the applicable terms conditions and standards are provided in the Facility Specific Requirements Section of the draft permit.

Prevention of Significant Deterioration (PSD) – Part 52

The changes included in this permit are a reconciliation of emissions and regulatory applicability based on maintenance activities (resulting in emission reductions). There are no projects included in this permit that will trigger the PSD regulation.

Non-Attainment New Source Review (NNSR) – Part 52

The changes included in this permit are a reconciliation of emissions and regulatory applicability based on maintenance activities (resulting in emission reductions). There are no projects included in this permit that will trigger the NNSR regulation.

New Source Performance Standards (NSPS) – Part 60

Subpart Kb: Volatile Organic Liquid Storage for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984

Existing tanks that are subject to NSPS Subpart Kb are identified in the permit. Modifications made to tanks not currently subject to this regulation will trigger compliance requirements of NSPS Subpart Kb

Refinery Tank Farm
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Activity Number: PER20070008
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National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories – Part 63

Subpart G: National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operation, and Wastewater

One (1) storage vessel (Source ID: KXFLD/TK0779X) will be assigned to a chemical manufacturing processing unit and is therefore subject to provisions of Subpart G. This tank will replace tank KXFLD/TK0863 which will no longer be assigned to a chemical manufacturing processing unit or subject to Subpart G.

Subpart H: National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks

The fugitive emissions associated with KXFLD/TK0779 are subject to provisions of Subpart H.

Subpart CC: Petroleum Refineries (Refinery MACT I)

Fugitive emissions from this permit are subject to NESHAP Subpart CC. The refinery complies via the Louisiana Refinery MACT Determination. Group 1 wastewater streams at the Refinery Tank Farm comply with Subpart CC through the provisions of NESHAP Subpart FF. Storage vessels are also subject to the requirements of this subpart and are designated as Group 1 or Group 2 vessels.

Compliance Assurance Monitoring (CAM) – Part 64

A CAM Plan is not required because the tanks with add-on controls are regulated by 40 CFR 63 Subpart CC which is a NESHAP standard proposed after November 15, 1990.

State Operating Permit Program (Title V) – Part 70

The current Part 70 Permit for Refinery Tank Farm was granted on January 11, 2007 as permit 2795-V2. This permit is a minor modification to the current permit.

Control of Emissions of Nitrogen Oxides – Chapter 22

The diesel engine is exempt from the provisions of LAC 33:III.Chapter 22.

Comprehensive Toxic Air Pollutant Emission Control Program – Chapter 51

The toxic air pollutant emissions from permit fugitives and storage vessels must be controlled to a degree that constitutes MACT. The refinery complies with the Louisiana Refinery MACT Determination for fugitive emissions. External floating roof tanks comply with applicable provisions of NESHAP Subpart CC and LAC 33:III.2103.D, internal floating roof tanks comply with applicable provisions of NESHAP Subpart CC.

Refinery Tank Farm
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V. Permit Shields

A permit shield was not requested.

VI. Periodic Monitoring

No periodic monitoring is required.

VII. Applicability and Exemptions of Selected Subject Items

See Permit.

VIII. Streamlined Requirements

Unit	Program Being Streamlined	Stream Applicability	Overall Most Stringent Program
RTF/FUG	LA Refinery MACT	5% VOTAP (class I and II)	LA Refinery MACT in the manner* agreed to be ExxonMobil in its approved Air Toxic Compliance Plan(April 18, 1996), per Source Notice and Agreement dated October 14, 1996
	LAC 33:III.2122	10% VOC	
	40 CFR 63 Subpart CC - modified HON option	5% VOHAP	
	40 CFR 60 Subpart GGG	10% VOC	

VIII. Glossary

Best Available Control Technologies (BACT) - An emissions limitation (including a visible emission standard) based on the maximum degree of reduction for each pollutant subject to regulation under this part which would be emitted from any proposed major stationary source or major modification which the administrative authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant.

Carbon Monoxide (CO) – A colorless, odorless gas which is an oxide of carbon.

Grandfathered Status- Those facilities that were under actual construction or operation as of June 19, 1969, the signature date of the original Clean Air Act.

These facilities are not required to obtain a permit. Facilities that are subject to Part 70 (Title V) requirements lose grandfathered status and must apply for a permit.

Hydrogen Disulfide (H_2S) - A colorless inflammable gas having the characteristic odor of rotten eggs, and found in many mineral springs. It is produced by the action of acids on metallic sulfides, and is an important chemical reagent.

Maximum Achievable Control Technology (MACT) - The maximum degree of reduction in emissions of each air pollutant subject to LAC 33:III.Chapter 51 (including a prohibition on such emissions, where achievable) that the administrative authority, upon review of submitted MACT compliance plans and other relevant information and taking into consideration the cost of achieving such emission reduction, as well as any non-air-quality health and environmental impacts and energy requirements, determines is achievable through application of measures, processes, methods, systems, or techniques.

New Source Review (NSR) - A preconstruction review and permitting program applicable to new or modified major stationary sources of air pollutants regulated under the Clean Air Act (CAA). NSR is required by Parts C ("Prevention of Significant Deterioration of Air Quality") and D ("Nonattainment New Source Review").

Nitrogen Oxides (NO_x) - Compounds whose molecules consists of nitrogen and oxygen.

Nonattainment New Source Review (NNSR) - A New Source Review permitting program for major sources in geographic areas that do not meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. Nonattainment NSR is designed to ensure that emissions associated with new or modified sources will be regulated with the goal of improving ambient air quality.

Organic Compound - Any compound of carbon and another element. Examples: Methane (CH_4), Ethane (C_2H_6), Carbon Disulfide (CS_2)

Part 70 Operating Permit- Also referred to as a Title V permit, required for major sources as defined in 40 CFR 70 and LAC 33:III.507. Major sources include, but are not limited to, sources which have the potential to emit: $\geq$ 10 tons per year of any toxic air pollutant; $\geq$ 25 tons of total toxic air pollutants; and $\geq$ 100 tons per year of regulated pollutants (unless regulated solely under 112(r) of the Clean Air Act) (25 tons per year for sources in non-attainment parishes).

PM_{10}- Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the method in Title 40, Code of Federal Regulations, Part 50, Appendix J.

Potential to Emit (PTE) - The maximum capacity of a stationary source to emit any air pollutant under its physical and operational design.

Prevention of Significant Deterioration (PSD) -- A New Source Review permitting program for major sources in geographic areas that meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. PSD requirements are designed to ensure that the air quality in attainment areas will not degrade.

Sulfur Dioxide (SO_2) – An oxide of sulfur.

Title V permit – See Part 70 Operating Permit.

Volatile Organic Compound (VOC) - Any organic compound which participates in atmospheric photochemical reactions; that is, any organic compound other than those which the administrator of the U.S. Environmental Protection Agency designates as having negligible photochemical reactivity.